

Item 7

TMDL for Toxic Pollutants Dominguez Channel, and the Greater Los Angeles and Long Beach Harbor Waters

State Water Resources Control Board
February 7, 2012

LOS ANGELES WATER BOARD

Noticed on December 17, 2010

Adopted on May 5, 2011

STATE WATER BOARD

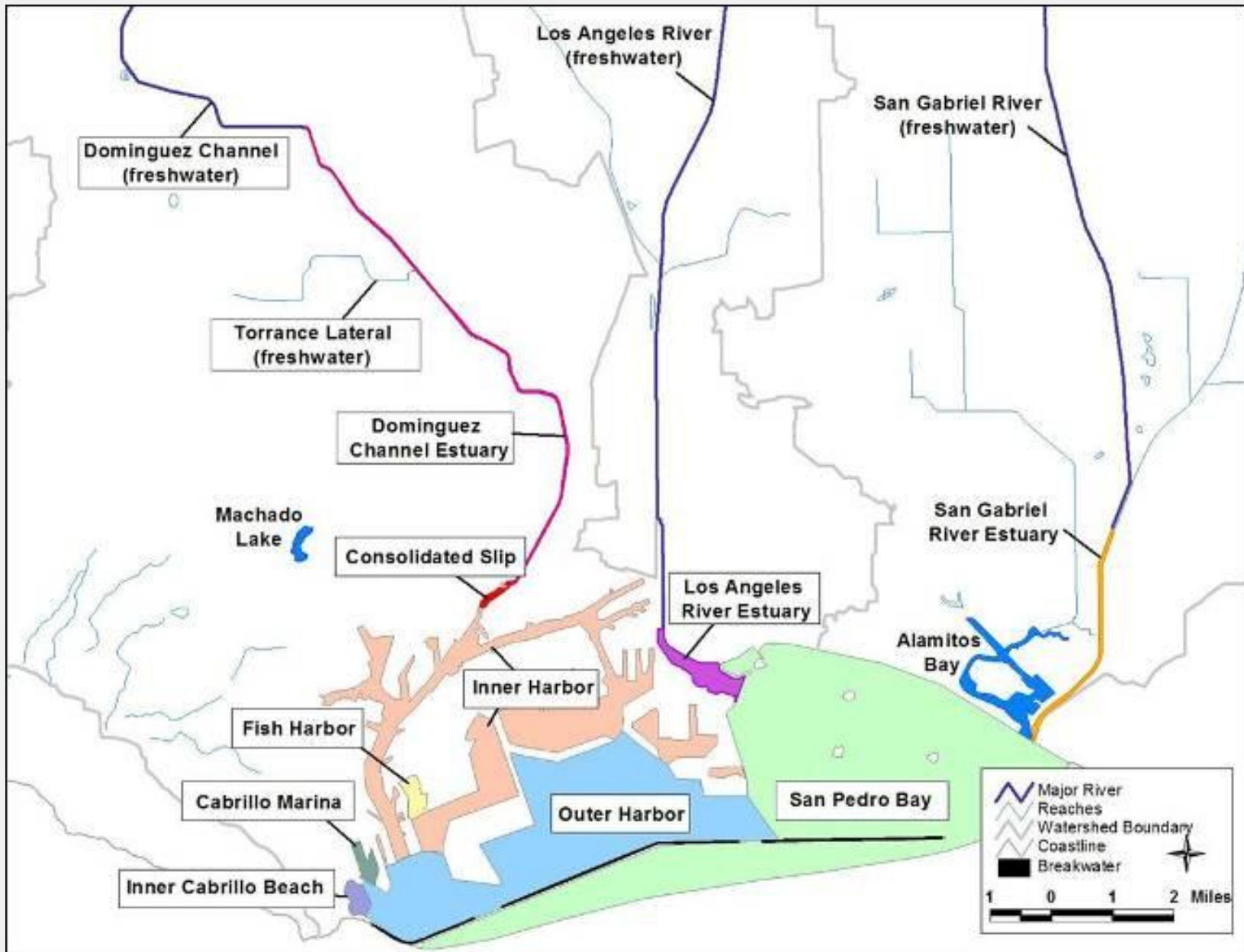
Noticed on September 20, 2011

34 comment letters

Resolution noticed January 24, 2012

26 comment letters

Environmental Setting



DRAFT ADDED FINDINGS

Added finding to recognize that the TMDL complies with State Board SQOs and federal requirements for establishing a TMDL

5. The State Water Board finds that the TMDL is consistent with the Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality (SQO – Part 1) through the application of the narrative SQO to protect aquatic life (“direct effects” SQO) and narrative SQO to protect human health (“indirect effects” SQO). The State Water Board finds that the use of sediment quality guidelines to establish numeric targets in the TMDL is necessary to meet federal requirements, but that compliance may be demonstrated using the direct effects SQO assessment approach and, once developed, the indirect effects SQO assessment methodology. The State Water Board also finds it appropriate to use the direct effects SQO assessment approach to prioritize contaminated sediment management as part of TMDL implementation.

DRAFT ADDED FINDINGS

Clarifies that sediment targets are not intended to be used as clean-up standards

6. The State Water Board reiterates the Los Angeles Water Board's direction that sediment targets included in the Basin Plan amendment are not intended to be used as "clean-up standards" for navigational, capital or maintenance dredging or capping activities; rather they are long-term sediment concentrations that should be attained after reduction of external loads, targeted actions addressing internal reservoirs of pollutants, and environmental decay of pollutants in sediment.

Clarifies that the TMDL will not require dredging of the entire Harbors

7. The State Water Board recognizes that this Basin Plan amendment does not dictate the manner of compliance with the TMDL and reiterates the Los Angeles Water Board's assessment that the implementation methods of the TMDL, as determined by the responsible parties, will likely include, though not be limited to, dredging and/or sequestering of some areas of highly contaminated sediment ("hot spots"), monitored natural attenuation of areas of less highly contaminated sediment, reduction of stormwater inputs, and reduction of aerial deposition for some pollutants through other regulatory programs. The State Water Board finds that this program of implementation over a period of 20 years will be sufficient to achieve final targets in place at 20 years and protect the beneficial uses.

Clarifies RB will reconsider the TMDL based on results of SS and new policies

8. The State Water Board joins with the Los Angeles Water Board in recognizing that scientific understanding of the impairments in the Dominguez Channel and Greater Harbor Waters will continue to increase as new monitoring data to refine watershed and hydrodynamic models are collected and special studies are undertaken, including but not limited to (1) foraging ranges of resident fish; (2) Harbor-specific sediment and fish tissue linkage studies; (3) further characterization of direct air deposition loadings; (4) further characterization of sediment deposition and transport; (5) evaluation of Los Angeles River and San Gabriel River loadings to the Harbors; (6) additional stressor identification studies; and (7) fish consumption rates within the Harbors. The State Water Board recognizes that the Los Angeles Water Board has included a specific opportunity to reconsider the TMDL in the 6th year of implementation to revise targets, waste load allocations, and load allocations based on new or amended policies, data, and results of special studies

Clarifies that any decision to reconsider the TMDL only be made after significant progress toward attaining the allocations and only once sufficient new information based on the special studies was available

9. The State Water Board recognizes the importance of selecting resident fish species to track implementation of the “indirect effects” TMDLs and the value of additional Harbor-specific information on the linkages between pollutant concentrations in resident species and sediment concentrations, including bioaccumulation dynamics. The State Water Board finds that it would be premature to reconsider any allocations, including those assigned to existing bed sediments, necessary to achieve fish tissue targets prior to completion of these studies or prior to making significant progress toward achieving the final allocations.

Clarifies that the Regional Board will work with stakeholders to determine the best course of action to achieve or revise the fish tissue targets

10. Upon completion of these studies and an indication of the efficacy of completed sediment management actions, if the Los Angeles Water Board determines that implementation actions to achieve the “indirect effects” sediment allocations may not achieve the fish tissue targets, the State Water Board expects that the Los Angeles Water Board will work with stakeholders to determine the best course of action. This may include revisiting the implementation schedule to achieve the fish tissue targets and/or revising, if appropriate, the numeric targets.

Provides clarification on the federal consent decrees related to this TMDL

11. Some of the areas and sediments covered by the TMDL have also been subject to federal consent decrees under the Comprehensive Environmental Response, Compensation, and Liability Act. Those consent decrees include covenants not to sue, which extend to certain administrative actions, for some responsible parties and certain activities. This TMDL is a scientific and technical document that is not self-implementing. The load allocations identify parties that contributed pollutants to the sediments; however, the basin plan amendment is not an administrative action that directs clean up. The extent of any covenant not to sue would be resolved if and when the Los Angeles Water Board issues an investigative order to responsible parties. The basin plan amendment cannot override a federal consent decree.

DRAFT ADDED RESOLVED

1. The State Water Board directs the Los Angeles Water Board to carefully review and evaluate the results of special studies on foraging ranges of resident species and the linkages between pollutant concentrations in targeted species and sediment concentrations, including bioaccumulation dynamics, before reconsidering the wasteload allocation and load allocations (including allocations assigned to existing bed sediments) necessary to achieve fish tissue targets.

2. Should the responsible parties choose to demonstrate compliance with the “direct effects” or “indirect effects” allocations using the SQOs, the State Water Board acknowledges the Los Angeles Water Board’s intention, as provided for in the Basin Plan amendment to utilize the multiple lines of evidence assessment methodology contained in the State’s SQO – Part 1 to determine compliance with the interim sediment allocations and final “direct effects” sediment allocations. The State Water Board further acknowledges the Los Angeles Water Board’s intention to utilize the assessment methodology developed as Phase 2 of the State’s SQOs to determine compliance with the final “indirect effects” sediment allocations or, alternatively, site-specific sediment quality values to address fish tissue impairments and protect human health, once developed.

3. The State Water Board directs State Water Board staff to prioritize development of the assessment methodology to support implementation of the “indirect effects” SQOs to protect human health as Phase 2 of the State’s SQOs.
4. Upon completion of special studies to determine the site-specific linkage between pollutant concentrations in fish tissue and sediment and/or an indication of the efficacy of the completed sediment management actions, if the Los Angeles Water Board determines that implementation actions to achieve the indirect effects sediment allocations may not achieve the fish tissue targets, the State Water Board directs the Los Angeles Water Board to work with stakeholders to determine the best course of action. This may include revisiting the implementation schedule to achieve the fish tissue targets and/or revising, if appropriate, the numeric targets.

STATE WATER BOARD

Noticed on September 20, 2011

Resolution noticed January 24, 2012

26 comment letters

REQUESTED ADDED FINDING FROM THE CITY OF LOS ANGELES

“The State Water Board reiterates that the mass-based sediments allocation in this TMDL indicate the allowable settleable load to bed sediments from each source”

PROPOSED NON-SUBSTANTIAL CHANGE DUE TO ADMINISTRATIVE ERROR

- The Regional Board staff reviewed the provided information and found that there is no unincorporated land owned by the County of Angeles within the Los Angeles River Estuary sub-watershed
- Recommend to remove the County of Los Angeles from the list of responsible parties for Los Angeles River Estuary (BPA pg 37)

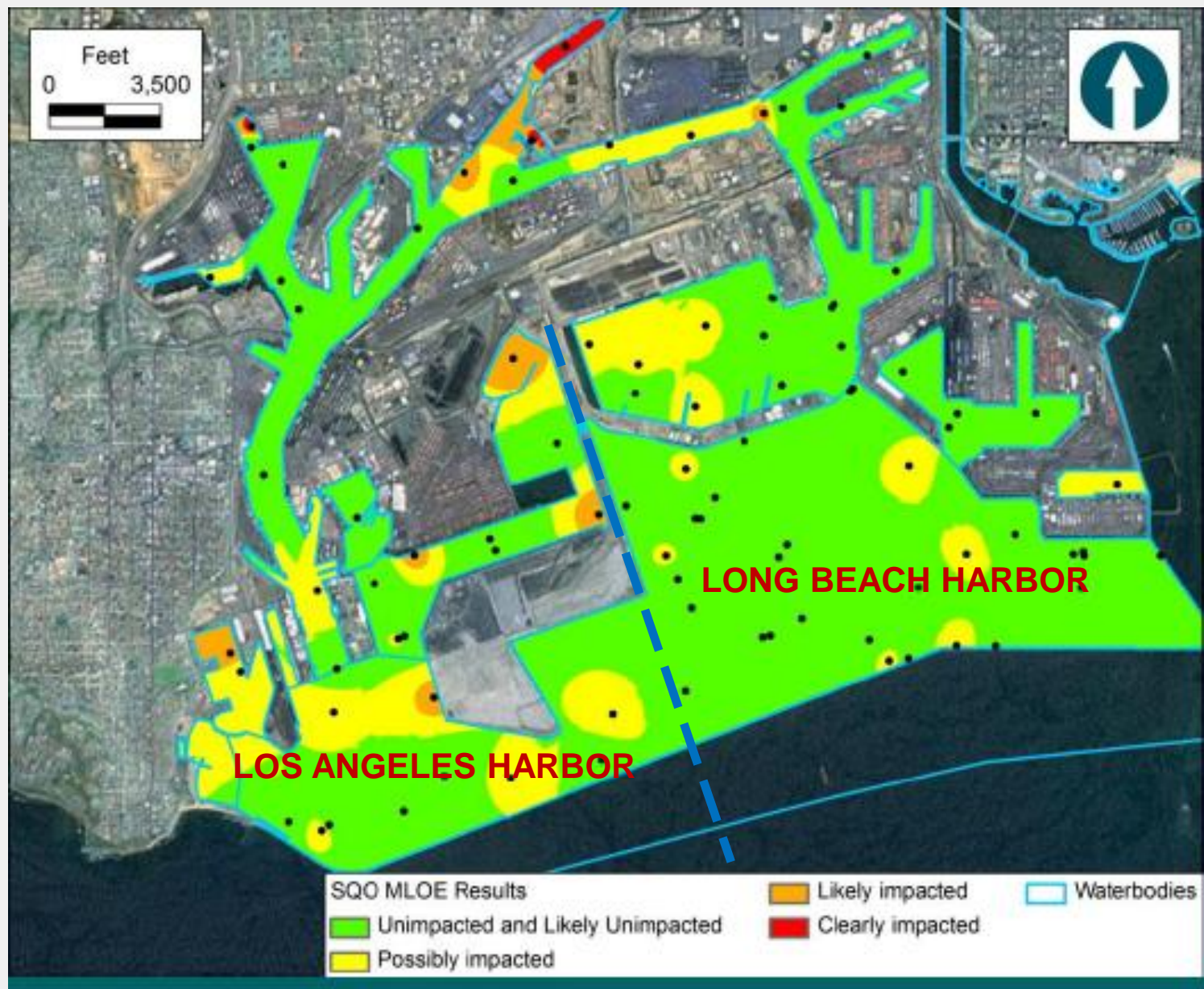


Figure 1. SQO Sediment Direct Effects Assessment Presented by Port of Long Beach at December 6, 2011 State Board Meeting

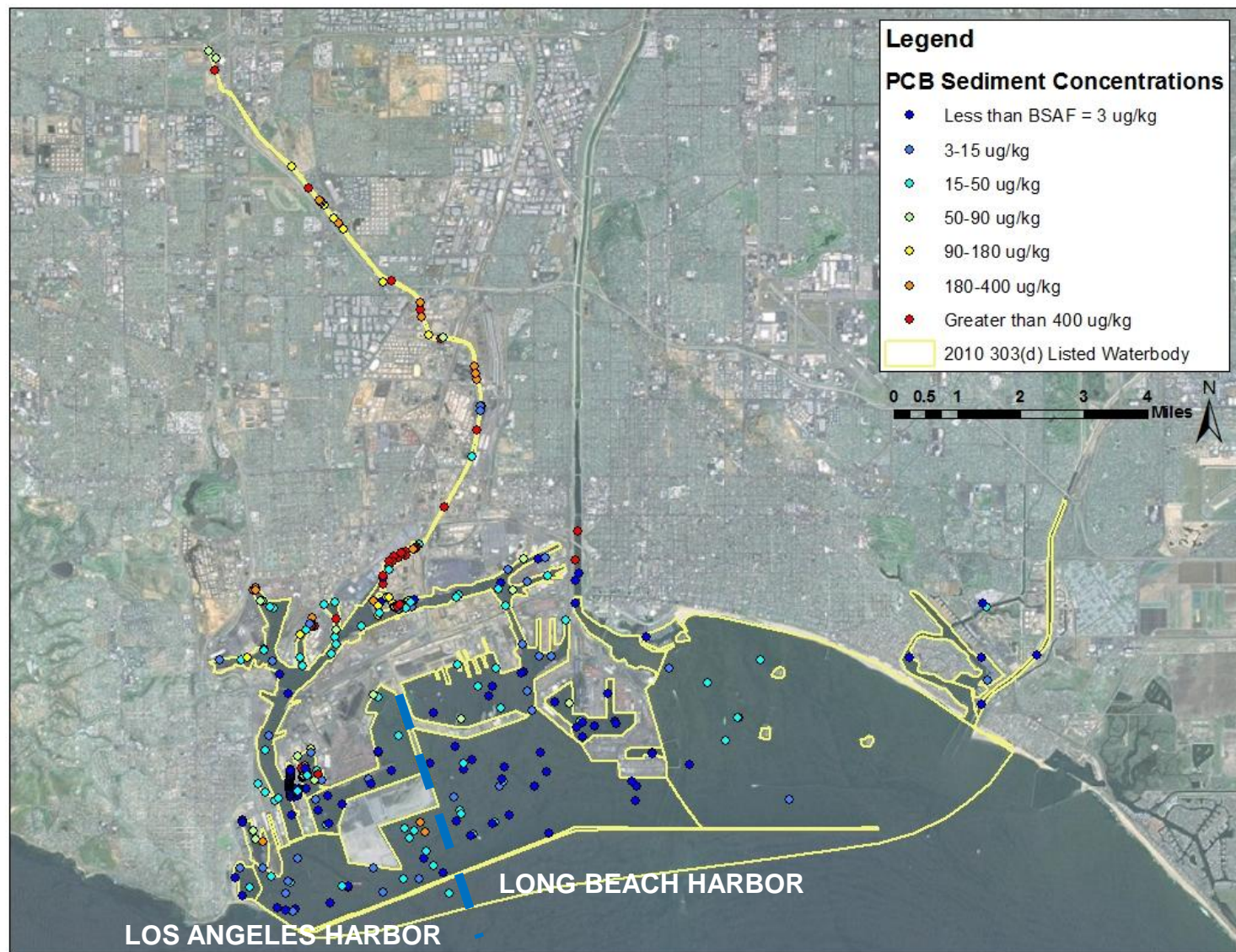


Figure 2. Total PCB Sediment results at Sampling Points.
(2002- 2008 data provided by Ports and figure compiled by EPA)



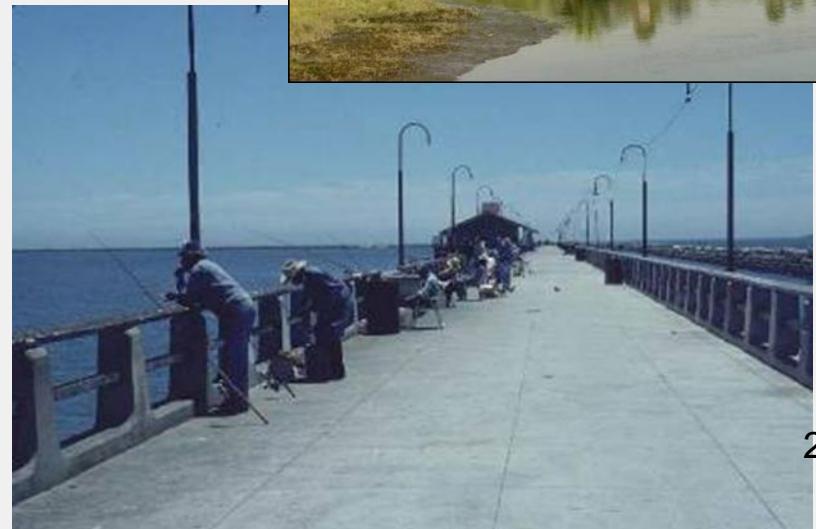
Figure 3. Total DDT Sediment results at Sampling Points.
(2002- 2008 data provided by Ports and figure compiled by EPA)

Goals of Harbors TMDL

Restore aquatic habitats to protect aquatic life and wildlife



Ensure fish are safe for human consumption



Overview of Harbors TMDL

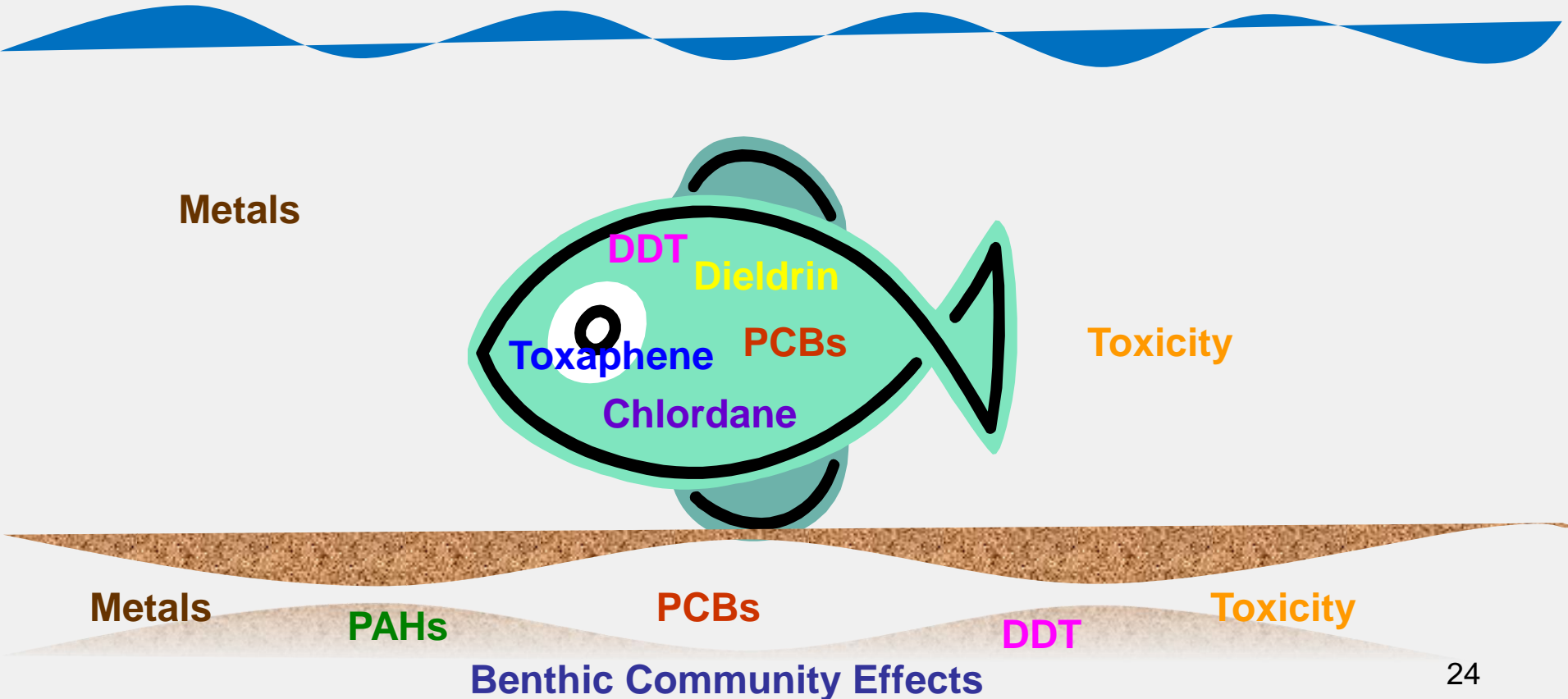
- **Numeric targets for water, sediment, & fish tissue**
 - *Same as previous TMDLs in LA Region*
- **Wasteload/Load Allocations**
 - pollutant loads from watershed,
 - internal loads from contaminated sediment, and
 - atmospheric deposition
 - *Same as previous TMDLs in LA Region*
- **Implementation**
 - Load reduction
 - Remediation of contaminated sediment 'hot spots'
 - Monitoring
 - *Compliance determination through State Water Board SQOs*

Use of Model in TMDL

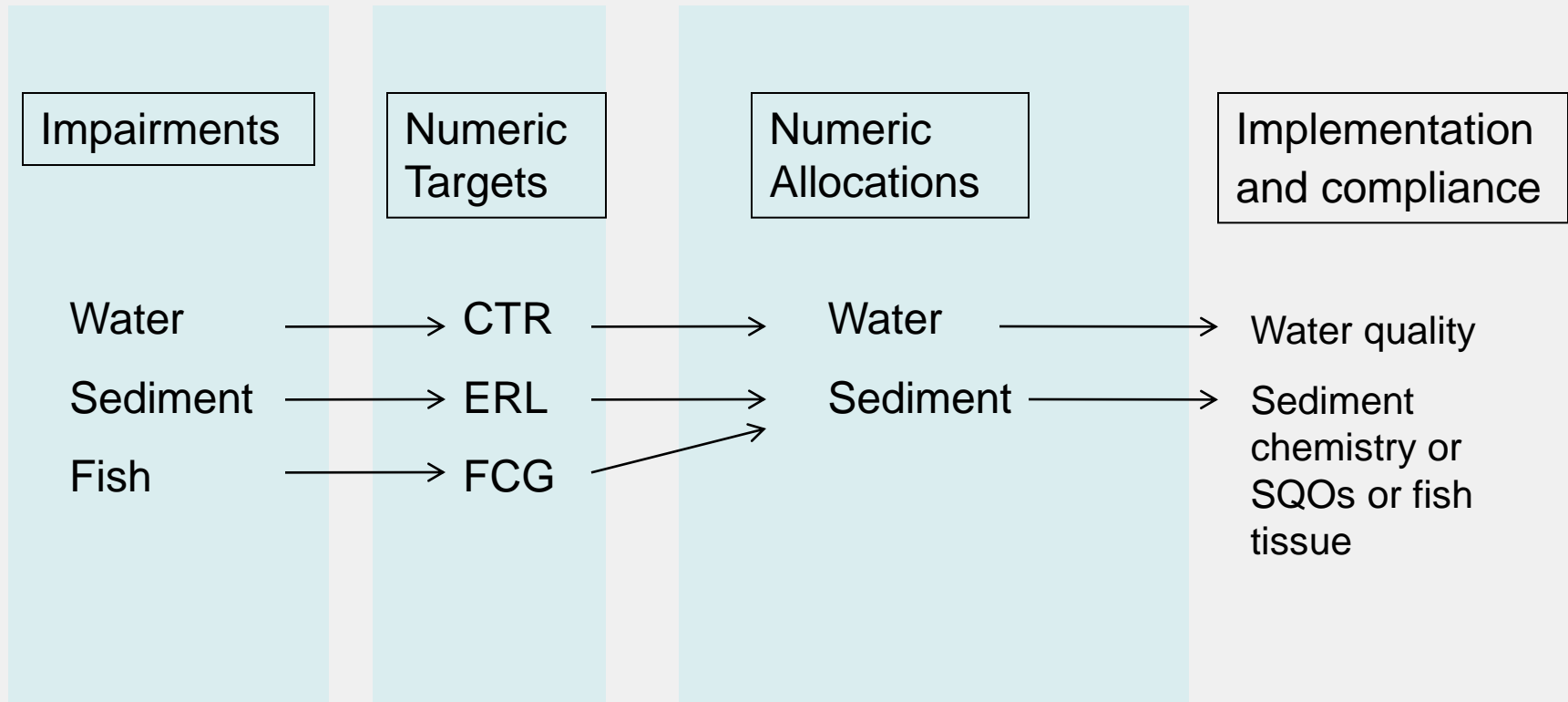
- Provided linkage analysis
- Provided sediment deposition information to distribute allocations
- Important working tool for implementation

Impairments

- 77 303(d) listings
- 79 Assessed impairments



Targets



CTR – California Toxics Rule

ERL – Effects Range Low

FCG – Fish Contaminant Goal

Fish Tissue

- OEHHA:
 - Fish Contaminant Goals - FCG
- BSAF - biota-sediment accumulation factors
- California Enclosed Bays and Estuaries Plan – narrative objective

Responsible Parties

Key Parties

- 21 Cities and Caltrans
 - Port of Los Angeles
 - Port of Long Beach
- Terminal Island Water Reclamation Plant
- 2 Generating Stations
- 5 Refineries

Waterbody Groups

- Dominguez Channel
 - estuary subgroup
- Harbor Waters
 - LA River estuary subgroup
 - Consolidated Slip subgroup
- LA and SG Rivers

Implementation

- **Phased approach, 20 years**
- **Pollutant load reduction**
 - BMPs
 - Watershed groups
- **Sediment remediation in ‘hot spots’**
 - Sediment management plan (within 2 yr. to identify / prioritize ‘hot spots’)
 - Monitoring
 - City of LA (POLA), City of Long Beach (POLB), State Lands Commission, Dominguez Channel estuary subgroup, LA River estuary subgroup
- **Monitoring**
 - LA/San Gabriel River watershed inputs
 - Special Studies e.g. Aerial deposition
- **Reconsideration (year 6)**

Recommendation

- Approve the TMDL as proposed.



Superfund Issues

Comments on TMDL and
Montrose Consent Decree

Natural Resource Damages Under Montrose Consent Decree

- Payment of \$23 million to “trustees” (NOAA, DOI, DFG, Parks)
- Federal/state agencies provided covenant not to sue for “natural resource damages”, and limited to Montrose site
- Natural resource damages cover compensatory damages, not TMDL under CWA to address ongoing discharges of pollutants
- No covenant not to sue under Clean Water Act or Porter-Cologne Act

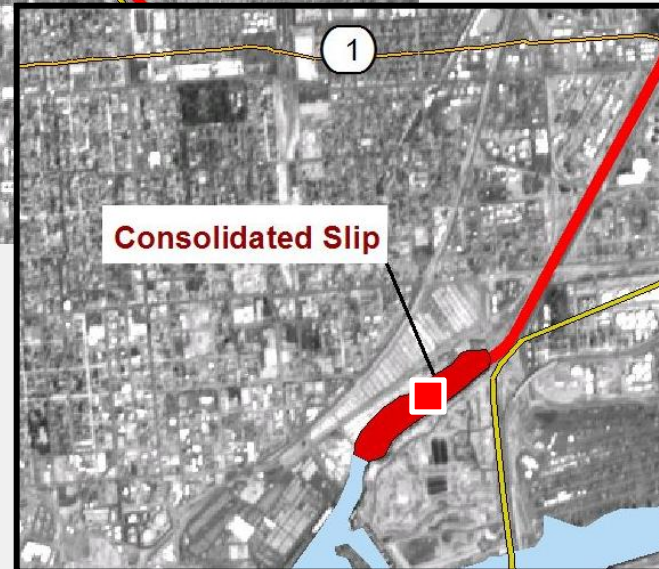
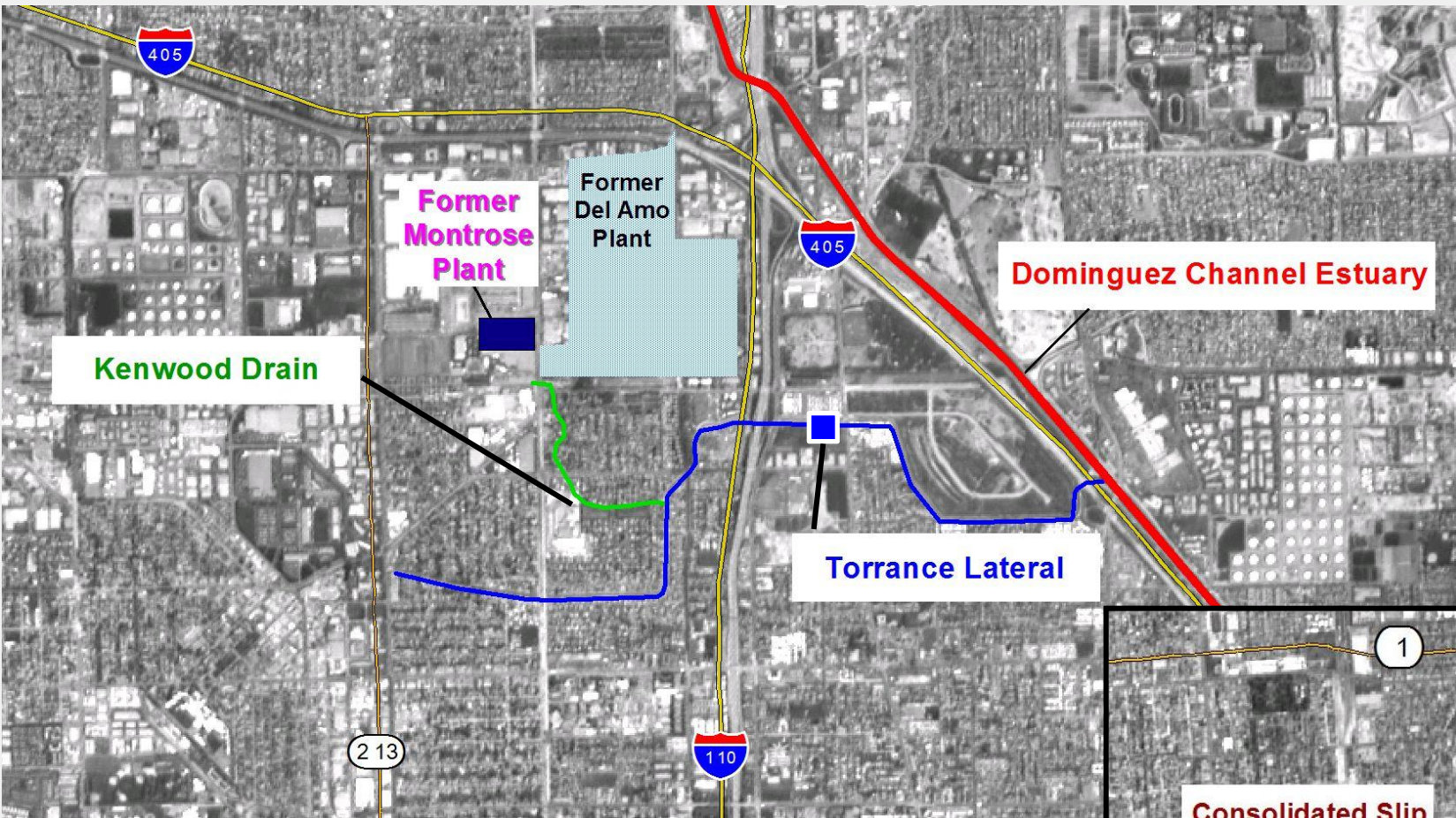
Response Costs Under Montrose Consent Decree

- EPA/Water Board/DTSC provided covenant not to sue for “Response Costs”
- Settling parties paid \$22 million in response costs to EPA/DTSC (none to Water Board)
- Addresses costs related to “Montrose Site” (facility to consolidated slip), not any other sites
- Only addresses claims related to DDT from Montrose facility, not other pollutants
- No covenant not to sue under Clean Water Act and Porter-Cologne Act

Clean Water Act Responsibility

- Entities must comply with Clean Water Act (e.g., NPDES permits and TMDL waste load allocations and load allocations)
- TMDL addresses 15 pollutants in sediment in consolidated slip, not just DDT and PCBs
- Other metals at Consolidated Slip, not just DDT/PCBs
- TMDL parties responsible for all constituents, not just DDT/PCBs
- When remove sediment for other pollutants, will also remove DDT/PCBs
- MS4 entities must comply with NPDES MS4 permit

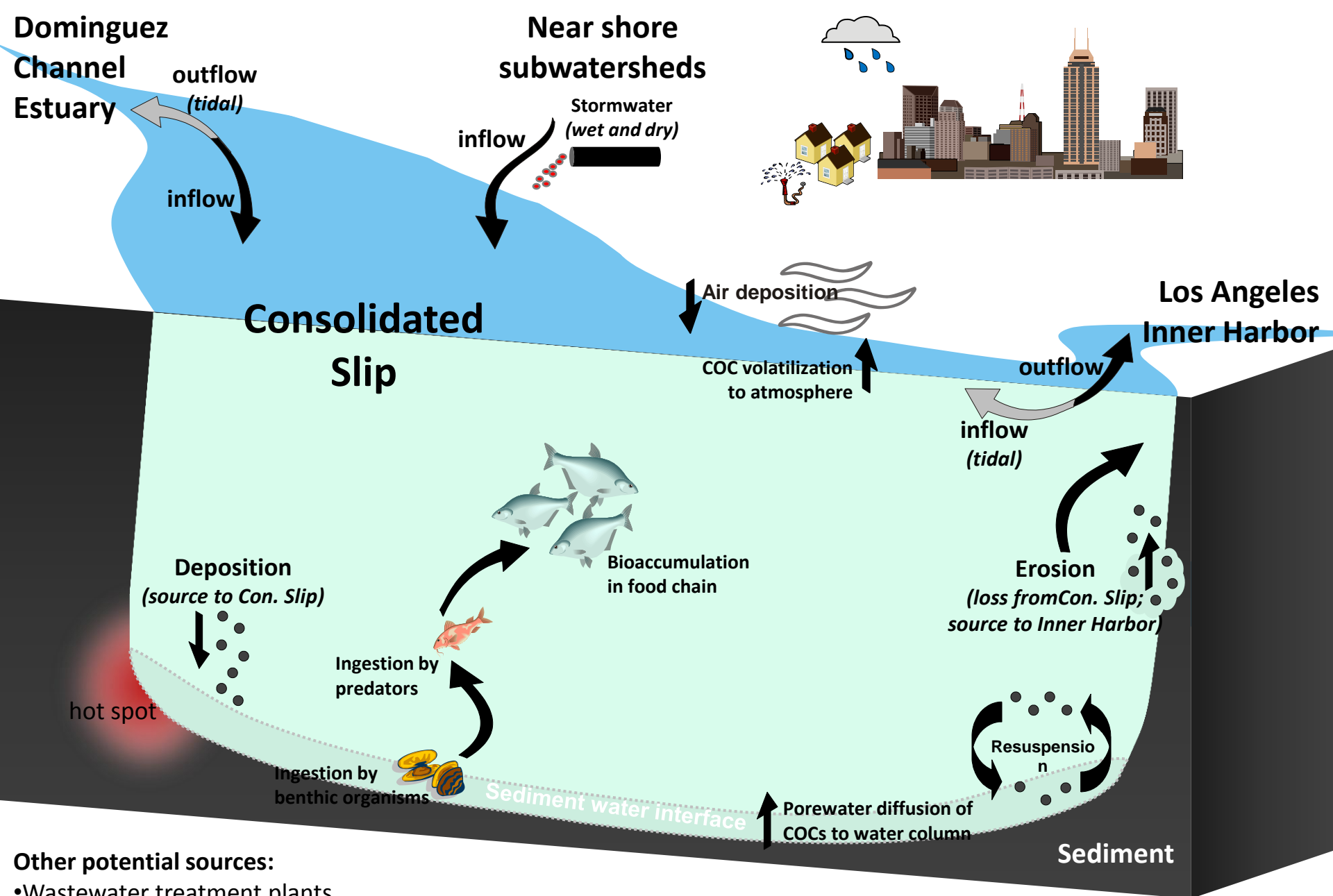
Superfund



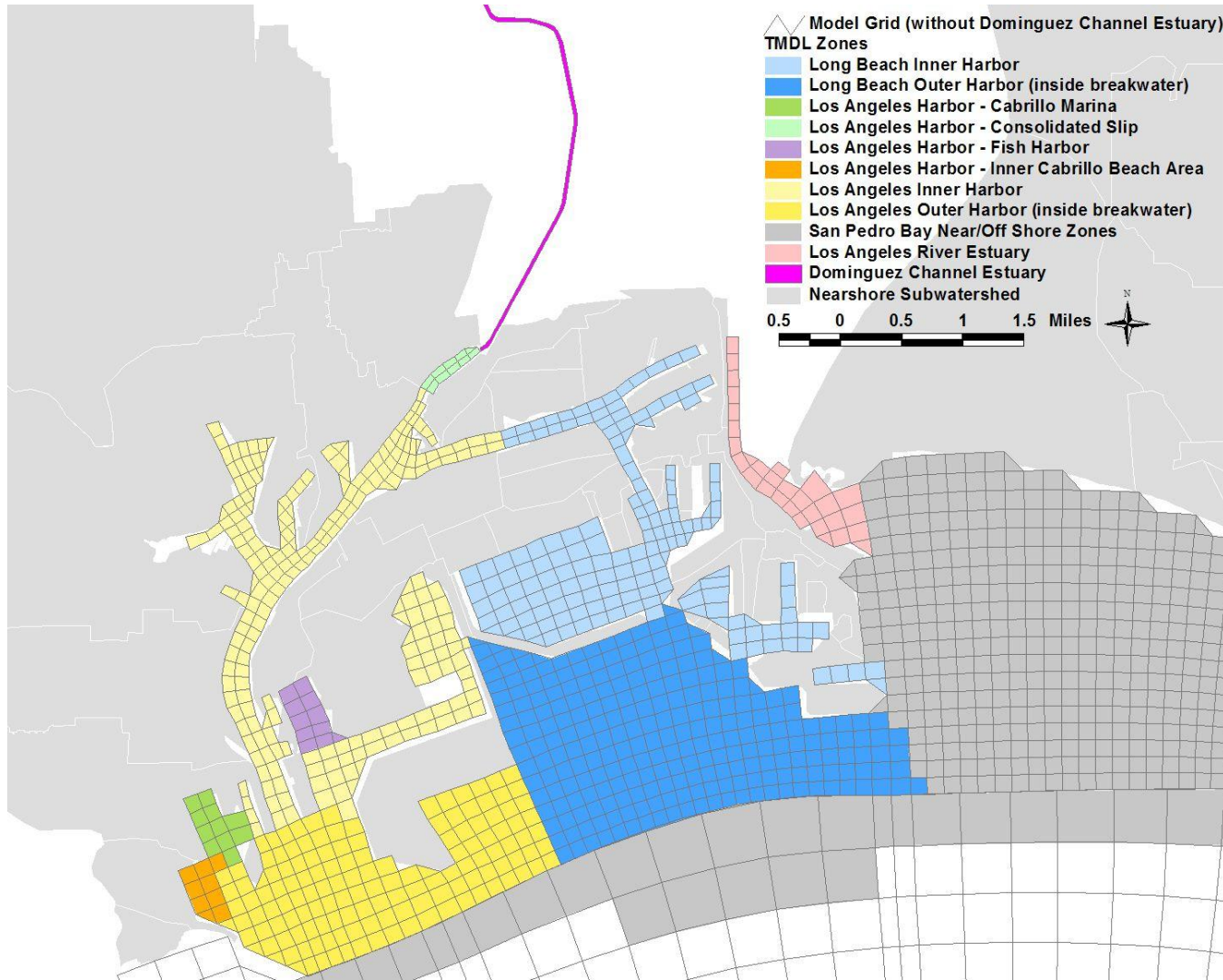
California Tidelands

Trust/Public Trust Doctrine

- 1911 – Legislature granted cities of Los Angeles and Long Beach all right, title, and interest in all tidelands and submerged lands, in trust for the public. Stats. 1911, pp. 1256, 1304.
- Public trust includes commerce, navigation, marine recreation, fisheries, and the conservation of resources.
 - “One of the most important public uses of the tidelands – a use encompassed within the tidelands trust – is the preservation of those lands in their natural state . . . As environments which provide food and habitat for birds and marine life.” *Marks v. Whitney* (1971) 6 Cal.3d 251, 259-60. See also *National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419.
- Trustee of Tidelands = All rights to ownership and possession that the state had prior to granting of title. In essence, Cities possess all of the power that state formerly held in relation to the lands. *City of Los Angeles v. Pacific Coast S.S. Co.* 91919) 45 Cal.App. 15, 17-18.
- All income and revenue generated from tidelands must be used for trust purposes. *Mallon v. Long Beach* (1955) 44 Cal.2d 199



Greater Harbors Waterbodies



Receiving water model (EFDC)

- Topography, bathymetry, open ocean boundary
- Meteorological conditions
- Freshwater inflows
- Tidal motion and currents
- Initial conditions - water column and bed sediment
- Sediment physical parameters: porosity, particle sizes, shear stress, settling rate,
- Sediment chemical diffusion rates, partitioning coefficients
- *Direct deposition to water surface*